V1 GROUT

V1®/50 PAGEL GROUT (0–5 mm)

PROPERTIES

› High flowability
› Controlled swelling with a frictional bond between concrete foundation and machine base plate
› High early and final strength
› Low modulus of elasticity in connection with a high bending tensile strength
› Low w/c value
› High frost-deicing salt resistance, impermeable to water and largely resistant to mineral oils and fuels
› Pumpable and easy to process – even at low temperatures, using mono, mixing and feed pumps (ask for machine suitability)
› Complies with the requirements of building material class A1 (non-combustible) as specified under decision 2000/605/EC of the European Commission dated September 26, 2000 (published in the official journal L258)

AREAS OF APPLICATION

› Universal grout for precision machines of any kind
› Turbines, generators, compressors, diesel engines and other power equipment exposed to high dynamic loads
› Fixators

MOISTURE CLASSES BASED ON CONCRETE CORROSION FROM ALKALI-SILICIC ACID REACTIONS

Moisture class	WO	WF	WA	WS
GROUT	•	•	•	•

The aggregates in PAGEL®'s products comply with the requirements of alkali sensitivity class E1 from non-hazardous sources specified under DIN EN 12620.

EXPOSURE CLASS ALLOCATION ACC. TO: DIN EN 206-1 / DIN 1045-2

	XO	XC	XD	XS	XF	XA	XM
		1 2 3 4	1 2 3	1 2 3	1 2 3 4	1 2 3*	1 2 3
V1®/50	•	• • • •	• • •	• • •	• • • •	• • •	• •

* Classification of the sulfate resistance acc. to DIN 19573

Classification acc. to the DAfStb VeBMR directive:

		Flowability class	Slump flow class	Shrinkage class	Early strength class	Compressive strength class
V1®/50	Categorisation	–	a3	SKVB I	A	C60/75

BWF ...genauer geht's nicht.
Fixatorenbau
Bertuch & Co GmbH
Siemensstraße 15
D-51381 Leverkusen
Tel. +49 2171 / 763–0
Fax +49 2171 / 763-100
e-mail:
BWF@Fixatorenbau.de
www.Fixatorenbau.de

TECHNICAL DATA

TYPE			V1®/50
Grain size		mm	0–5
Undergrouting height		mm	20–120
Amount of water	max.	%	12
Consumption (dry mortar) approx.		kg/m³	2.000
Fresh mortar raw density approx.		kg/m³	2.300
Processing time approx.	20 °C	min	90
Measure of extension	5 min	mm	≥ 700
	30 min	mm	≥ 620
Swelling	24 h	Vol.-%	≥ 0,1
Compressive strength*	1 d	N/mm²	≥ 40
	7 d	N/mm²	≥ 60
	28 d	N/mm²	≥ 75
	90 d	N/mm²	≥ 90
Bending tensile strength**	1 d	N/mm²	≥ 4
	7 d	N/mm²	≥ 6
	28 d	N/mm²	≥ 8
	90 d	N/mm²	≥ 10
E-Module (static)	7 d	N/mm²	≥ 30.000
	28 d	N/mm²	≥ 35.000

* DIN EN 196-1-compliant mortar compressive strength testing
DIN EN 12390-3-compliant testing of concrete compressive strength
** DIN EN 12390-5-compliant bending tensile strength testing

Note: All stated test values correspond to the DAfStb VeBMR directive.
Testing of fresh and solid mortars at 20 °C ± 2 °C, storage of the test specimen after 24 hours until the strength test in water at 20 °C ± 2 °C. Higher or lower temperatures result in deviating properties of fresh respectively solid mortars and test results. Depending on the temperature, the consistency can be adapted with a slight reduction of the mixing water.

Storage: 12 months. Cool, dry, free from frost. Unopened in its original container.
Delivery form: 25-kg bag, Euro pallet 1,000 kg
Hazard class: Non-dangerous goods, observe information on packaging.
GISCODE: ZP1

PAGEL PRODUCT COMPOSITION:
Cement: acc. to DIN EN 197-1
Aggregate: acc. to DIN EN 12620
Additions: acc. to DIN EN 450, general building inspection approval (abZ), DIN EN 13263 (fly ash, microsilica, etc.)
Admixtures: acc. to DIN EN 934-4

APPLICATION

SUBSTRATE PREPARATION:
Remove loose and unsound material such as cement slurry and dirt etc. using suitable methods, e.g. shot-blasting or similar until the underlying solid grain structure has been exposed. A sufficient average tear strength (≥ 1.5 N/mm², KEW ≥ 1.0 N/mm²) must be ensured.

Prewetting:
Prewet the concrete substrate to capillary saturation for approx. 6-24 hours.
Reinforcing steel:
Blast all rust off exposed reinforcement bars until the underlying metal has been exposed acc. to purity grade SA 2 ½ in accordance with DIN EN ISO 12944-4.
Non-iron metals:
Cement and cement-bound building materials may cause non-iron-metals in the transitional area of the contact surface (e.g. aluminium, copper, zinc) to loosen.
Please contact us for technical advice.

FORMWORK:
Attach in such a way that it is leak-proof and robust. Seal on the concrete substrate. Use non-absorbent formwork.
Protruding grout:
Do not exceed the specified 50 mm when allowing grout to protrude and observe the structural specifications. When grouting dynamically stressed and prestressed base plates and machine foundations that are subject to high compression strengths at the edges, the grout should ideally be applied to be flush with the bearing plate, provided with a 45° edge using formwork or cut off flush with the bearing plate before it has set.
This will prevent any stresses from becoming superimposed on one another and from becoming annihilated (observe static and structural specifications).

MIXING:
The dry mortar is supplied ready to use and only needs to be mixed with water. Fill the specified amount of water apart from a residual amount into a clean and suitable mixing device (e.g. compulsory mixer).
Add the dry mortar and mix for at least 3 minutes. Add the remaining water and mix for at least another 2 minutes until it forms a homogeneous mass.

GROUTING:
The mixture must be poured from one side or corner only in one continuous pour. When grouting large areas, we recommend to pour the grout starting in the centre of the foundation plate, using a funnel or filling hose. Cavities should be filled first (up to around just below the top edge) and then the machine plate or similar.

Temperature range: +5 °C to + 35 °C
Mixing water: Drinking water quality

FOLLOW-UP TREATMENT:
Exposed grout areas must be protected from premature water evaporation (from wind, draughts, direct exposure to sun, etc.) immediately on completion of the work for a period of 3-5 days.
Suitable curing methods:
Water spray, foil covers with jute sheets, thermofoils or moisture-retaining covering sheets, **O1** EVAPORATION PROTECTION.
The technical data sheet must be observed when using **O1** EVAPORATION PROTECTION.

Fixatorenbau
Bertuch & Co GmbH
Siemensstraße 15
D-51381 Leverkusen/
Germany

Tel. +49 2171 / 763–0
Fax +49 2171 / 763-100
e-mail:
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www.Fixatorenbau.de